

## Taylor Rules, OK? The Perils of Active Monetary Policy

Since John Taylor's seminal 1993 paper describing the Federal Reserve's monetary policy, a large body of economic research has argued that active interest rate feedback rules contribute to macroeconomic stability. But are these 'Taylor rules' – which stipulate that the response to increases or decreases in inflation is a more than one-for-one increase or decrease in the nominal interest rate – really stabilizing? A recent CEPR Discussion Paper by Jess Benhabib, Stephanie Schmitt-Grohé and Martin Uribe – 'The Perils of Taylor Rules', No. 2314 (December 1999) – expresses serious doubts.

Benhabib *et al* argue that analysing active monetary policy rules in theoretical models generally reveals indeterminacy and multiple equilibria. Pursuing such a policy can easily lead to unexpected consequences even in the simplest and most innocuous monetary models, using the simplest and most standard assumptions. The reason the researchers arrive at such a different conclusion from much of the existing literature is not that they use a different theoretical framework but that they explicitly take account of the fact that nominal interest rates cannot fall below zero.

It immediately follows from this observation that a central bank cannot have a globally active policy stance. For inflation rates sufficiently below the inflation target, the central bank runs into the zero bound on nominal rates and can no longer pursue an active monetary policy. In other words, it can no longer respond to decreases in the inflation rate by cutting short-term interest rates by even more. As a result, the economy can become trapped in a low-inflation, low-output equilibrium and expectations of low or even deflationary equilibria become self-fulfilling. Such liquidity traps arise because the central bank cannot credibly threaten to create inflation by lowering rates in an environment with near zero nominal rates.

Previous researchers have limited their analysis to the impact of interest rate feedback rules on stability under scenarios in which inflation remains forever near the central bank's long-run inflation target. One justification for such a strategy is the implicit assumption that all inflation paths that move far enough away from the inflation target are explosive and thus cannot be supported as equilibrium outcomes.

But according to this research, the zero bound on nominal rates implies that paths for the inflation rate in which inflation moves further and further below its target do not become explosive and can indeed be supported as equilibrium outcomes. Both theoretical models and simulations of calibrated economies suggest that active interest rate feedback rules can give rise to self-fulfilling liquidity traps in the context of models where prices are either flexible or 'sticky'.

The researchers also find that there are equilibria in which the economy converges on the liquidity trap with positive probability but the inflation rate fluctuates for long periods of time around the target rate and monetary policy is, thus, active. It follows that an econometrician using data generated from an economy of this type to estimate the interest rate feedback rule may very well conclude that the economy is displaying stationary fluctuations around the target rate, even though the economy is in fact spiralling down into a liquidity trap.

These results suggest that central banks that maintain an active monetary policy stance near a given inflation target are more likely to lead the economy into a deflationary spiral – like the one currently observed in Japan and, some might argue, in Europe – than central banks that maintain a globally passive monetary stance, such as an interest-rate or exchange-rate peg.

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